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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/874,426	06/04/2001	Brett J. Muir	5181-76500	5677

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EXAMINER

NGUYEN, KIMNHUNG T

ART UNIT	PAPER NUMBER
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2674

3

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/874,426

Applicant(s)

MUIR, BRETT J.

Examiner

Kimnhung Nguyen

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This application has been examined. The claims 1-19 are pending. The examination results are as following.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 6, and 8-10, 12, 15 and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Wolden (US patent 5,599,280).

Regarding claim 1, Wolden discloses in figures 6-7, a computer input device (keyboard 19) comprising a heating element (22, figure 5) configured to generate heat, wherein the input device (keyboard) is configured to transfer heat from the heating element (22) to a user of the input device (19) (see user place his wrist on the surface, such as typing on a computer keyboard, an electrical cord 21 provides electrical power to operate internal heating elements, see column 2, lines 15-19, and it determined that this configuration reduces stress and increases the comfort of the user, see column 2, lines 56-64).

Regarding claim 3, Wolden discloses in figure 4, the device comprising a microcontroller (20) coupled to the heating element (22), wherein the microcontroller is configured to control the amount of heat produced by the heating element (see column 2, lines 40-44).

Art Unit: 2674

Regarding claim 6, Wolden discloses wherein the input device (keyboard 19 is coupled to a computer system, and wherein power to the heating element is supplied by the computer (see column 2, lines 40-44).

Regarding claims 8-9, Wolden discloses the device comprising a plurality of heating elements (22) and the heating elements are distributed and the heating is centralized (see figure 5).

Regarding claim 10, Wolden discloses in figures 1-3, a computer input device (keyboard 19) comprising a vibration element (15, figures 1-2) configured to generate vibrations, wherein the input device (keyboard) is configured to transfer vibrations from the vibrating element (15) to a user of the input device (19) (see user place his wrist on the surface, such as typing on a computer keyboard, it will provide the vibrating element, see column 2, lines 15-19).

Regarding claim 12, Wolden discloses in figure 4, the device comprising a microcontroller (20) coupled to the vibrating (15), wherein the microcontroller is configured to control the amount of vibration produced by the vibrating element (see column 2, lines 40-44).

Regarding claim 15 Wolden discloses wherein the input device is coupled to a computer system, and wherein power to the vibrating element is supplied by the computer (see column 2, lines 40-44).

Regarding claims 17-18, Wolden discloses the device comprising a plurality of vibrating elements (15) and the heating elements (22) are distributed, and wherein the vibrating element is centralized (see figures 1-2).

Art Unit: 2674

Regarding claims 19, Wolden discloses in figure 3 a computer input device (keyboard 19) comprising a heating element configured to generate heat, wherein the input device is configured to transfer heat from the heating element to user of the input device during; and a vibrating element configured to generate vibrations, wherein the input device is configured to transfer vibrations from the vibrating element to a user of the input device during (see column 2, lines 15-19).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolden (US patent 5,599,280) in view of Tu et al. (US patent 6,206,842).

Wolden discloses in figure 4, a computer input device (keyboard 19) comprising a heating element (22) configured to generate heat, wherein the input device (keyboard) is configured to transfer heat from the heating element (22) to a user of the input device (19) (see user place his wrist on the surface, such as typing on a computer keyboard, it will provide the heating element, see column 2, lines 15-19). However, Wolden does not disclose a temperature sensor coupled to the heating element. Tu et al. disclose a medical device having an addition vibrational massage therapy for the tissues comprising a temperature sensor (32, see figure 4) to measure the rises or drops point of the

Art Unit: 2674

temperature to activate the ultrasonic energy supply (see column 5, lines 15-25). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the using of temperature sensor of medical device having vibrational massage therapy as taught by Tu et al. into the computer input device having heating elements of Wolden because this would control a signal to cut off the ultrasonic energy supply or control a signal to activate the ultrasonic energy supply (see column 5, lines 21-26), and thereby generating thermal energy and microvibration in the tissue (see column 7, lines 23-27).

5. Claims 11, 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolden (US patent 5,599,280) in view of Moriyasu (US patent 5,857,986).

Wolden discloses in figure 3, a computer input device (keyboard 19) comprising a vibrating element (15, figures 1-2) configured to generate vibrations, wherein the input device (keyboard) is configured to transfer vibrations from the vibrating element (15) to a user of the input device (19) (see user place his wrist on the surface, such as typing on a computer keyboard, it will provide the vibrating element, see column 2, lines 15-19). However, Wolden does not disclose a vibration sensor coupled to the vibrating. Moriyasu discloses in figure 1 an interactive vibrator system provide stimulus to a computer user in response to interaction between computer and user with input device as mouse (3) having vibration sensor (see vibrator system senses these signals and generates a driving signal for vibrating device (22, see figure 1, column 3, lines 60-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the using of vibrator system senses these signals and generates a driving signal for vibrating

Art Unit: 2674

device as taught by Moriyasu into the computer input device of having the vibrating elements of Wolden because this would drive the driving signal and the resulting vibration have variable amplitude and duration depending on the nature of the user actions (see column 3, lines 65-67).

6. Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolden (US patent 5,599,280) in view of Wright, Sr. (US patent 5,686,005 cited by Applicant).

Wolden discloses in figure 4, a computer input device (keyboard 19) comprising a heating element (22) or vibrating element (15) configured to generate heat or vibrations wherein the input device (keyboard) is configured to transfer heat or vibrations from the heating element (22) or vibration element (15) to a user of the input device (19) (see user place his wrist on the surface, such as typing on a computer keyboard, it will provide the heating element, see column 2, lines 15-19) as discussed in claims 1 and 10. However, Wolden does not disclose wherein the input device comprises an external control device to allow a user to alter the heating element or the vibrating element. Wright, Sr. discloses a conventional rheostat and/or thermostat controls (external control device, not shown) can be incorporated to the heat computer system. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the using of rheostat and/or thermostat controls as taught by Wright, Sr. into the computer input device of Wolden having heating and vibrating elements because this would be incorporated within the electrical line to achieve and maintain the desired temperature range (see column 3, lines 64-67).

Art Unit: 2674

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number (703) 308-0425.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD A HJERPE** can be reached on (703) 305-4709.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D. C. 20231


Or faxed to:

(703) 872-9314 (for Technology Center 2600 only).

Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive, Arlington, VA Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Kimnhung Nguyen
September 30, 2003


RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600